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ABSTRACT

The study described in this report investigated the effect of the classroom structure and climate of a recently desegregated school on the outgroup friendships and ethnic attitudes of white, black, and Mexican American fourth grade students in Dallas, Texas. A path analysis that charted the interethnic attitudes and attitude changes from fourth to fifth grade found that: (1) the higher the percentage of outgroup members in a class, the more outgroup friends the white and Mexican American students had: (2) the more the outgroup members displayed hostility toward the ingroup, the more negative were the ingroups' attitudes toward the outgroup among blacks and whites in general; (3) the more equal the social class and achievement levels of whites and minorities, the more minority friends the white students said they had: and the greater the discrepancy between whites and Mexican Americans, the more white friends the Mexican Americans had or said they would like to have, and the more favorable their attitudes toward whites were; and (4) the higher the self esteem of the whites, the more positive their ethnic attitudes. These results are discussed in this report within the context of a general model of factors that influence the outcomes of desegregated schools. (Author/APM)

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# THE EFFECTS OF DESEGREGATION ON PREJUDICE

FINAL REPORT

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## Abstract

The present study was designed to investigate the effect of the classroom structure and the classroom climate of desegregated schools on the outgroup friendships and ethnic attitudes of white, black, and Mexican American fourth-grade students in a large, southwestern school district. A path analysis that investigated both the interethnic attitudes of the fourth graders and changes in interethnic attitudes from fourth to fifth grade found that (a) the higher the percentage of outgroup members in a class, the more outgroup friends the white and Mexican American students had; (b) the more the outgroup members in a class displayed hostility toward the ingroup, the more negative were the ingroups' attitudes toward the outgroup among blacks and whites in general; (c) the more equal the social class and achievement levels of the whites and minorities in a class, the more minority friends the white students had; and the greater the discrepancy between the whites and the Mexican Americans the more white friends the Mexican Americans had and the more favorable their attitudes toward whites were; and (d) the higher the self-esteem of the whites in a class, the more positive their ethnic attitudes. These results were discussed within the context of a general model of factors that influence the outcomes of desegregated schools.

## General Background

Although our society is built on ideals that stress fairness and equal opportunity for all, it is clear that these ideals are not always attained. The existence of prejudice and racial discrimination often blocks the way to true equality in our society. In this report we will be concerned with school desegregation, one of America's most important social experiments. We will outline why desegregation was expected to reduce prejudice and discrimination and we will review the evidence concerning the effects of desegregation. We will also review the literature on the development of racial attitudes. Finally, we will present data from our study of the effects of desegregation in Dallas, Texas.

We define racial attitudes as attitudes toward socially defined racial and ethnic groups or toward members of those groups. Racial attitudes, like all other attitudes, may be thought of as having three components: cognitive, affective and behavioral. The cognitive component consists of the processes involved in subdividing the social world into distinct groups, the sets of traits attributed to the groups (stereotypes), and sets of beliefs concerning the groups. The affective component consists of the evaluations of members of the other groups (particularly the evaluations of the traits they possess) and the affective tone associated with the beliefs about the groups. The behavioral component is comprised of predispositions to act in a positive or negative manner toward members of a group on the basis of their group membership. These predispositions may or may not result in overt behavior. When they do result in overt behavior and the behavior is negative, we will label this behavior discrimination.

The Development of Racial Attitudes

The first, and perhaps still the most prominent, theoretical description of the development of racial attitudes was proposed by Goodman (1952, 1964). According to this theory, the cognitive component of racial attitudes develops first, somewhere between the ages of 3 and 5. The distinctions among groups then take on evaluative connotations in the period from approximately 5 to 7 years of age. Full integration of racial attitudes (where there is consistency among the cognitive, affective, and behavioral components) occurs around the ages of 8 to 10 years. A somewhat more elaborate version of this approach has recently been proposed by Katz (1976). Her eight-stage model includes a stage prior to the emergence of the cognitive component of racial attitudes in which the child is assimilating race-relevant information. Further, she deemphasizes the distinction between the stages at which the cognitive and affective components emerge and suggests that both may emerge simultaneously. She believes that these two components become consolidated about age 5. This consolidation is accompanied by a contrasting of differences between groups and assimilation of perceived differences within groups. In the last set of developmental stages, the evolving racial attitudes become more elaborate and crystallize into the fully integrated attitudes proposed by Goodman.

The evidence from studies of racial attitudes provides some support for both Katz's theory and Goodman's theory. However, before we discuss this evidence, we will briefly present an overview of the kinds of measures most often used to assess racial attitudes. The method that has been most widely used in young children is the doll preference

technique developed by Clark and Clark (1947). This technique, and its many variants, uses black and white dolls, pictures, animals or other stimuli that are presented to children. The children are then asked such questions as, "Which doll looks nice?", "Which doll looks bad?", "Which doll would you like to play with?", and "Which doll looks like you?". The reasoning behind this technique is that the black and white stimuli represent black and white people and thus, the children's choices can be taken as an index of their racial attitudes. Although the doll technique can be criticized on a number of grounds (e.g., Banks, 1976; Brand, Ruiz & Padilla, 1974; Katz, 1976; Stephan & Rosenfield, 1979) the results from these studies are often remarkably similar to those obtained using more direct measures of racial preferences, racial attitudes, and racial classification abilities.

One of these other, more direct, techniques of measuring racial attitudes is the Preschool Racial Attitude Measure (PRAM). The PRAM uses short stories that are read to children. The children are then asked to decide whether a black or white person displayed the traits of the protagonist. The traits may either be positive (e.g., smart, friendly, good) or negative (stupid, mean, bad). In this report, we will review data from both indirect and direct measures of racial attitudes.

## The Cognitive Component of Racial Attitudes

Studies of the cognitive component of racial attitudes have examined both racial classification ability and ethnic stereotyping. The results of studies of racial classification ability vary somewhat, but generally it appears that this ability begins to emerge at about three years of

age and becomes reasonably well established about the time children enter school. For example, Clark and Clark (1947) asked their subjects, "Give me the doll that looks like a white (colored) child." They found that for both blacks and whites, 77% of the three-year-olds, 94% of the five-year-olds, and 100% of the seven-year-olds responded correctly. Using the Morland Picture Interview, which requires children to make 10 of 12 correct classifications, Williams and Morland (1976) report that 16% of the black three-year-olds and 23% of the white three-year-olds correctly classified racial pictures, whereas 58% of black five-year-olds and 87% of white five-year-olds made correct classifications.

In addition to racial classification abilities, some aspects of stereotyping also appear during the preschool years. In the doll studies the children are generally asked, "Which doll looks nice?", and "Which doll looks bad?". While these questions are evaluative in nature, they do ask the child about some specific attributes of blacks and whites ("nice" and "bad") that are part of children's and adolescents' stereotypes (Brigham, 1974; Lerner & Knapp, 1976). In response to these questions, both black and white preschool children tend to choose the white doll as looking nice and the black doll as looking bad, although whites do this more frequently than do blacks (Asher & Allen, 1969; Greenwald & Oppenheim, 1968; Gregor & McPherson, 1966; Hraba & Grant, 1970; and Fox & Jordan, 1973, found this pattern for whites but not for blacks). By grade 4, children appear to have assimilated many of the characteristic traits of stereotypes of blacks and whites (Brigham, 1974).

## The Affective Component

The affective component of racial attitudes has been extensively studied by Williams and Morland (1976) using the PRAM. Because the PRAM asks children to decide whether a white or black person possesses a positive or negative trait, the child's choices provide an index of how positively or negatively they evaluate whites and blacks. The results from a wide variety of samples that have been given the PRAM are quite consistent. At the preschool level, both blacks and whites attribute more positive traits to whites than to blacks, but whites do this to a greater degree than blacks. For early school-age children, no change in this pro-white bias has been noted for blacks, but for whites it appears that the pro-white bias decreases somewhat after the second grade. At the junior high level whites continue to evaluate whites most positively, while blacks display a pro-black bias.

## The Behavioral Component

Studies employing the doll technique have often included a question relevant to the behavioral component of racial attitudes. This question is, "Give me the doll that you would like to play with." The racial preferences that are expressed on this type of measure suggest a predisposition to play with children from a given group. These predispositions may or may not be related to actual intergroup behavior, a topic we will take up shortly, but the responses to this question may be taken as an index of racial preference. In responding to these questions, the general trend of the results is that whites show a high level of preference for white dolls. This preference is apparent among preschool chil-

dren and does not change during the early school years (Asher & Allen, 1969; Fox & Jordan, 1973; Greenwald & Oppenheim, 1968; Gregor & McPherson, 1966; Hraba & Grant, 1970). Black preschool children also evidence a preference for white dolls, although they prefer white dolls less than white preschoolers do (Greenwald & Oppenheim, 1968; McAdoo, 1970). Early school age black children appear to show either no preference between groups or a preference for blacks (Gregor & McPherson, 1966; Fox & Jordan, 1973). These general trends for racial preference differ from the trends for racial evaluation but they have been supported in other studies using similar indirect measures of racial preference (Goodman, 1964; Porter, 1971; Radke & Trager, 1950; Stevenson & Stewart, 1958).

A technique developed by Morland (1962) also provides data on behavioral predispositions. This technique involves asking children whether they would prefer to play with a white or black person who appears in photographs. Williams and Morland (1976) have summarized 11 studies using the technique. Whites again show a strong preference for whites in the preschool years and this preference does not change from preschool age to school age children. Black preschoolers again prefer whites, but early school age blacks prefer blacks.

Since the research shows that white children have strong pro-white evaluations and preferences even in their preschool years while they do not develop good racial classification skills until age 5 (Williams & Morland, 1976), it would appear that whites acquire strong racial evaluations and preferences before they acquire racial classification skills. The picture for blacks is more complex. Blacks become progressively better at classifying the races with age and they show an increased pre-

ference for blacks as they get older. However, this developmental trend in preference for black playmates is not mirrored in the evaluative data in which blacks display a pro-white bias from preschool age through the elementary school years. These apparent disjunctions between the cognitive, evaluative and behavioral components of racial attitudes raise a question about whether these three components of children's racial attitudes are actually related. On the basis of studies indicating that racial preferences among blacks and whites do not vary as a function of classification abilities, Williams and Morland (1976) conclude that "Children's awareness of racial classification has little systematic relationship to their responses to the preference...items" (p. 231).

Thus, these studies hint that the clear developmental progression outlined by Goodman (1964) does not exist. As suggested by Katz (1976), children may independently acquire information on the cognitive and affective components of racial attitudes. In addition, their behavioral preferences may also emerge independently of the other two components of racial attitudes. This suggests that the acquisition of racial attitudes is considerably more complicated than has generally been thought. Classification skills depend on cognitive abilities that can deal with the multidimensional schemata that are necessary to distinguish between groups. Thus, it seems reasonable to expect a clear developmental trend for this component, a trend that would follow cognitive development. Evaluative reactions, on the other hand, are acquired from socialization agents such as parents, siblings, teachers, and the media. The fact that the affective component of racial attitudes is dependent on individual socialization experiences could account for its independence from class-

ification abilities which rely more on purely cognitive processes.

While the existence of evaluative responses depends on exposure to race specific socialization experiences, and the acquisition of classification skills depends on the development of certain cognitive skills, the development of behavioral preferences may be subject to yet a different set of acquisition processes. Behavioral preferences may be more determined by situational constraints. For example, positive feelings about other group members are unlikely to be reflected in behavioral preferences if ingroup peers are opposed to interactions with outgroup members. Similarly, in some families, children may be directly prohibited from playing with members of other groups despite having positive (or neutral) feelings about the group. Thus, all the components of interracial attitudes may have very different origins and, hence, may be somewhat independent.

Intergroup Friendship Choices

In addition to the numerous studies of children's racial attitudes that have been done in the last 40 years, a small number of studies have examined children's intergroup friendship behavior. The overall conclusions that emerge from these studies point to a developmental trend of increasingly ethnocentric friendship choices in interracial settings. For example, nursery school children appear not to discriminate on the basis of race (Porter, 1971) but by elementary school, ingroup choices do begin to emerge. Moreover, segregation by sex is more prevalent than segregation by race at the elementary school level. However, race typically becomes a more important factor in friendship choices by the

end of elementary school and continues to be more important thereafter (Schofield, 1980). An indication of the high levels of ethnocentrism displayed by older school age children can be seen in the high frequency of ingroup choices that students make when they are asked to indicate who their best friends are (Gerard & Miller, 1976; Rosenberg & Simmons, 1971). For instance, in Rosenberg and Simmons' (1971) study of junior high school students, over 95% of the students' "third best friends" were ingroup members. (The percentages were even higher for first and second best friends).

The clear ethnocentrism that exists for older children in both behavior and attitudes indicates that there is a loose consistency between the components of racial attitudes and actual interracial behavior. As we will note shortly, however, the correlations between attitudes and behavior and among the various components of racial attitudes are never very high. This probably reflects the different acquisition processes associated with behavior and with the various components of racial attitudes.

In our attempt to analyze the different acquisition processes in intergroup behavior and the different types of acquisition processes that are associated with the three components of racial attitudes, we do not mean to imply that there is anything inevitable about these processes. The results we have presented do point to the existence of some general normative trends, but there still remains considerable variation among children in their racial attitudes.

## School Desegregation and Racial Attitudes

The belief that school experiences affect racial attitudes was clearly reflected in the testimony given by social scientists in the 1954 Supreme Court decision in the Brown vs. Board of Education case on school desegregation.

Social scientists made two types of contributions to the Brown decesion. They testified in the individual trials, and they filed and amicus curiae (friend of the court) frief. The amicus curiae brief that was filed was written by Kenneth Clark, Isidor Chein, and Stuart Cook, and signed by 32 social scientists (Allport et al., 1953). The brief outlined the effects of segregation on prejudice and self-esteem. It stated that:

> Segregation, prejudices and discrimination, and their social concomitants potentially damage the personality of all children ... Minority group children learn the inferior status to which they are assigned ... they often react with feelings of inferiority and a sense of personal humiliation ...
>
> Some children, usually of the lower socio-economic classes, may react by overt aggression and hostility directed toward their own group or members of the dominant group. (Allport et al., pp. 429-430)
>
> With reference to the impact of segregation and its concomitants on children of the majority group ... children who learn the prejudices of our society are also being taught to gain personal status in an unrealistic and nonadaptive way ... by comparing themselves to members of the minority group ... The culture permits and at times encourages them to direct their feelings of hostility and aggression against ... minority groups ... (Allport et al., pp. 430-434)

The social science brief was concerned primarily with prejudice and self-esteem, but it is clear from the testimony of the social scientists in the individual trials that they believed that self-esteem and prejudice affected the school achievement of minority students. These

three variables were perceived to be interrelated in a vicious circle. White prejudice was regarded as the cause of segregation, and segregation was thought to lead to low self-esteem among blacks. This in turn affects the black student's motivation to learn, as well as their achievement. Low self-esteem and frustration over low achievement are then turned outward in the form of prejudice toward whites. The low-esteem and low achievement of blacks and their antipathy toward whites reinforces white prejudice and the circle is complete.

It was reasoned that desegregation would break this vicious circle by denying an institutionalized sanction for white prejudice. If the behavior of whites was changed, their attitudes were expected to change to be consistent with their behavior. Further, in desegregated schools, the self-esteem of blacks should increase because they would no longer be stamped with the badge of inferiority represented by segregation. It was expected that these increases in self-esteem would be associated with increased achievement and reduced prejudice toward whites. The improved facilities in desegregated schools and the opportunity to interact with white students could also contribute to improvements in black achievement. Intergroup contact in desegregated schools was expected to reduce the prejudices of both groups.

The empirical data collected since 1954 do not support the optimistic predictions made by the social scientists. In summarizing the results of 80 studies of the effects of desegregation on prejudice, self-esteem and achievement, one of us recently wrote:

> It is tentatively concluded that (a) desegregation generally does not reduce the prejudices of whites toward blacks, (b) the self-esteem of blacks rarely increases in desegregated schools,

> (c) the achievement level of blacks sometimes increases and rarely decreases in desegregated schools, and (d) desegregation leads to increases in black prejudice toward whites about as frequently as it leads to decreases. (Stephan, 1978, p. 217)

While the data indicate that desegregation did not have many of the effects it was expected to have, this conclusion must be viewed as only tentative for several reasons. For example, most of these studies were done during the initial phases of desegregation programs and their results may not generalize to the long-term effects of desegregation. Also, the desegregation plans that have been studied vary from community to community, as did the age of the children studied and the ethnic composition of the schools. Because of these and other reasons (see Stephan, 1978), the long-term effects of well-planned and well-executed desegregation plans is still somewhat of a question mark.

One of the great gaps in the literature concerns the effects of desegregation on Mexican Americans. Precious little is known concerning the outcomes of school desegregation for Mexican Americans. Of the published studies examining racial prejudice after school desegregation, few include data on Mexican Americans. Green and Gerard (1974) employed a liking measure to examine interethnic attitudes of blacks, whites, and Mexican Americans from Kindergarten to 6th grade after one year of desegregation. They found that all three groups chose members of their own group as friends more frequently after desegregation than before. Stephan and Rosenfield (1978) in the study to be reviewed next, examined the interethnic attitudes of 6th graders from the above three ethnic groups. The data from these and other studies on the effect of desegregation on Mexican Americans are so incomplete that no conclusions con-

cerning its effects can be drawn. One difficulty in collecting data has been that in some southwestern school districts (e.g., Austin, Texas) Mexican Americans have been counted as white, in an apparent effort to impede the process of desegregation.

When one considers the growing proportion of minority citizens in the U.S. who are hispanic, the increasing voice of Hispanics in American life, and the increasingly critical nature of our U.S.-Mexico border problems, this lack of information is shocking. In 1979 Hispanics in the U.S. numbered 12.1 million persons. The Hispanic population is young, compared to the overall population. (Current Population Reports, 1979). Further, Hispanics have a mean educational attainment level of 10.2 years, as compared with 12.4 years for all races (Current Population Reports, 1978). Both the young age of the population and the lowered educational attainment suggest that issues involving school desegregation are of particular importance for this ethnic group.

## Origins of the Present Study

With this background, we would now like to examine the results of some of our own research into this area. In our initial study of desegregation we analyzed its effects on racial attitudes, self-esteem, and interracial contact. One of the limitations of many of the previous studies on desegregation is that they examine the effects of desegregation on only one variable at a time. This makes it impossible to examine the interrelationships among the variables. Another important limitation of many previous studies is that the effects of desegregation were analyzed only for blacks and whites. Recently, as a result of the Keyes

case in Denver, members of the nation's second largest minority, Mexican Americans, have begun to be included in desegregation plans. In our study, we attempted to examine the effects of desegregation on Mexican Americans as well as on blacks and whites. The majority of desegregation studies have employed cross-sectional designs or have used longitudinal designs with no control group, but in our study members of all three ethnic groups were studied both before and eight months after desegregation. The data that we will present concern the effects of desegregation on 6th grade students in a southwestern school district during the first year after desegregation was implemented (1974).

Since each student rated all three ethnic groups, it is possible to examine attitudes toward both the ingroup and the two outgroups. The results for the racial attitudes revealed two important findings. First, all three groups were highly ethnocentric, displaying more positive attitudes toward their ingroup than toward the outgroups. Second, the attitudes of previously segregated blacks and whites (but not Mexican Americans) toward all three ethnic groups were more negative after desegregation than before. The first result is consistent with a large literature indicating that all human groups tend to be ethnocentric (LeVine & Campbell, 1972). The second result is interesting because it points to another problem with many previous studies of desegregation. Typically, most investigators only examine attitudes toward the outgroup. However, we measured attitudes toward the ingroup as well as toward the outgroup. Had we only assessed outgroup attitudes, we would have concluded that desegregation led to increases in prejudice, just as many previous investigators have concluded. The data from the attitudes

toward the ingroup indicate that such conclusions may be misleading, however. Instead, it appears that desegregation caused previously segregated blacks and whites to become more negative toward other people generally, including members of their own group. This suggests that increases in prejudice that have been attributed to desegregation may not have been the result of increasing interracial antagonism, but rather may have been due to the students' experiences during the first year of desegregation. The initial phases of desegregation are often characterized by high levels of anxiety and hostility due to the opposition and conflict out of which desegregation plans arise, and to confusion over their implementation. These frustrations apparently result in hostility that is directed toward other people in general, not just members of ethnic outgroups.

The finding that Mexican Americans did not display more negative attitudes after desegregation than before is at first surprising. Further investigation, however, suggests that this result may be attributable to the fact that most of the Mexican Americans attended a "desegregated school" that contained less than 10% more members of other ethnic groups than the segregated school they had previously attended. Thus, they experienced minimal desegregation and could hardly be expected to have responded as did students who experienced the disruptions associated with more thorough desegregation.

The results on our inter-ethnic contact measure revealed high levels of ethnocentrism in all three groups. In addition, desegregation appeared to have no effects on informal interethnic contact. An analysis of the relationship between inter-ethnic contact and racial attitudes indicated

that the two were significantly correlated, but only moderately ($r$ = .28).

For the self-esteem measure it was found that blacks scored the highest and Mexican Americans the lowest. Desegregation lowered the self-esteem of blacks from segregated backgrounds but raised the self-esteem of blacks from integrated backgrounds. Desegregation had no effects on the self-esteem of Mexican Americans or whites. Thus, while the self-esteem of blacks was not generally low, desegregation did have some negative effects on it. The most likely explanation of these results is that blacks use other blacks as their social comparison group. During the initial phases of desegregation, the blacks from segregated backgrounds experienced considerable difficulty adjusting to their new school environment as indicated by the negative changes in their racial attitudes. These students may have made negative social comparisons to blacks from integrated backgrounds whose previous experiences probably enabled them to cope with desegregation more effectively. These results are also consistent with another large scale study of the effects of desegregation on self-esteem conducted by Gerard and Miller (1975). They also found that blacks from segregated backgrounds experienced an initial drop in self-esteem. In addition, they found that black self-esteem rebounded to pre-desegregation levels within two years.

Overall, these results are quite consistent with previous studies of desegregation. They indicate, as have the majority of other studies, that desegregation does not reduce prejudice, increase inter-ethnic contact, or raise the self-esteem of minority students. The ethnocentrism that was found for both attitudes and behavior indicates that by

the 5th grade, children are displaying a clear pattern of ingroup evaluative preference. Further, the correlations between attitudes and behavior suggest that there is some integration between the evaluative component of racial attitudes and actual behavior. These conclusions are strengthened by the fact that most of these results were replicated in a second study of desegregated schools (Stephan & Rosenfield, 1979). In this study, we were primarily interested in a more thorough examination of minority group self-esteem, but we also examined racial attitudes and behavior.

There is a long standing controversy concerning self-rejection among blacks and other minorities. This issue was central to the arguments presented by social scientists in the Brown trial. The results of the doll studies and other studies using similar techniques have often been cited as evidence of self-rejection among blacks. However, before we can interpret the findings that young blacks often prefer and identify with the white stimuli as an index of black self-rejection, three implicit assumptions must be made. First, it must be assumed that choosing the white stimuli implies a rejection of the black stimuli. Second, it must be assumed that the white and black stimuli represent white and black people, and thus, that rejection of the black stimuli may be taken as an indication of a rejection of black people. Third, it must be assumed that rejecting black people implies a rejection of the self on the part of the black children.

Given the tenuousness of these three assumptions and the weakness of the evidence for them, it seemed to us that a more direct approach to the issue of self-rejection among blacks was needed. In order to

address this issue we studied 5th grade black students and comparison groups of Mexican American and white students who were attending school in a small Texas town.

The results for our self-esteem measure indicated that blacks were not significantly lower in self-esteem than whites, although the Mexican Americans were. However, when social class and achievement levels were controlled, even this latter difference fell below significance. Thus, most of the differences in self-esteem between the three ethnic groups in our sample were due to differences in their social class backgrounds and academic achievement.

The results from the attitude and contact measures supported the findings in the previous study. All three ethnic groups had highly ethnocentric attitudes and behavior patterns. In addition, just as in the previous study, it was found that the attitudes and behavior measures were moderately correlated in all three groups (mean $\underline{r}$ = .29).

The most intriguing finding in this study was that the self-esteem of the blacks and their ethnocentrism (an index comparing their view of blacks to their views of Mexican Americans and whites) were positively correlated ($\underline{r}$ = .35). This indicates that black children who rejected blacks tended to reject themselves as well. The correlations between self-esteem and ethnocentric attitudes were not significant for whites or Mexican Americans. Thus, these results do show support for the assumption that, among blacks, rejection of self is related to rejection of other blacks.

The results comparing the overall level of self-esteem among the three ethnic groups replicates those of our previous investigation

(Stephan & Rosenfield, 1978a) which found no indication of black self-rejection. They are also consistent with a number of other studies using direct measures of black self-esteem in which blacks were not found to have lower self-esteem than whites or were actually found to have higher self-esteem than whites, or were actually found to be higher than whites in self-esteem (Edwards, 1974; Hodgkins & Stakenas, 1969; McDonald & Gynther, 1965; Powell & Fuller, 1970; Stephan & Kennedy, 1975). When all of these studies are considered in conjunction with the small number of studies showing that blacks have lower self-esteem than whites (e.g., Deutsch, 1960; Gerard & Miller, 1975; Williams & Byars, 1968), it seems reasonable to conclude that blacks are not generally lower in self-esteem than are whites, but that Mexican Americans often are (Coleman et al., 1966; Gerard & Miller, 1975; Stephan & Kennedy, 1975; Stephan & Rosenfield, 1978a). However, it should be pointed out that in many of the studies finding such differences, social class and achievement were not controlled.

Even though the results of Stephan and Rosenfield (1979) indicate that blacks do not reject themselves (a conclusion reached by several others who have reviewed the evidence, Banks, 1976; Edwards, 1974) there was clear support for the assumption made in the doll studies, that blacks who reject their ethnic group also tend to reject themselves.

Although many social scientists thought that, under certain circumstances, desegregation could help destroy inter-ethnic hostility, it is clear that most current desegregation plans do not provide appropriate circumstances for the elimination of ethnic antagonism. Allport (1954), Amir (1969), and Cook (1972) are among the investigators to systematically study the conditions that are necessary for inter-ethnic contact to reduce prejudice. Amir (1969) points out that the degree of cooperation

vs. competition in the desegregated setting is an important determinant of whether or not desegregation will reduce prejudice. He based his conclusion on the results of studies which indicated that competition is likely to heighten inter-ethnic tensions, while cooperation tends to lessen it. Unfortunately, in most schools, competition is an integral part of the grading system while cooperation is rarely practiced. It is not surprising, then, that competition between whites and minorities in desegregated schools leads to inter-ethnic hostility.

Amir (1969) also pointed out that inter-ethnic contact should be informal and between equal status members of the ethnic groups if inter-ethnic relations are to be improved. Desegregation rarely leads to informal, equal-status contact, however. As one of our earlier studies (Stephan & Rosenfield, 1978a) and other studies by Gottlieb and Ten Houten (1965) have shown, desegregation typically does not lead to increases in informal interethnic contact. It is also rare for whites and minorities to meet on an equal status basis in desegregated schools. Whites usually are from higher socioeconomic status backgrounds (e.g., Stephan & Rosenfield, 1979), have higher academic achievement scores (e.g., Gerard & Miller, 1975; Stephan & Rosenfield, 1979), and are accorded more status and respect by the faculty and staff of the school. These status differentials reinforce negative stereotypes of minority groups rather than destroy them, thus inhibiting improvements in inter-ethnic relations.

The final condition that Amir feels is important for reducing prejudices is support from public officials. When public officials encourage people to resist desegregation efforts, there are likely to be racial

problems and conflicts in the schools. On the other hand, Pettigrew (1971) has found that where officials favor intergroup contact, interethnic relations typically improve.

It is clear, therefore, that desegregation plans, as they are most often implemented, are not likely to significantly reduce racial hostilities. Nevertheless, it is still likely that some students will show decreases in prejudice even though most may not. By identifying some of the characteristics that determine whether an individual will increase or decrease in prejudice, it may be possible to shed light on ways of designing desegregation plans that will be more successful.

## Identifying Conditions for Decreasing Prejudice

Although a number of studies have examined factors that are related to individual differences in prejudice, very little research has been done to investigate the causes of changes in prejudice, especially within a desegregated school. Examining factors that are related to individual differences in prejudice, however, does provide a starting point for identifying variables that may cause changes in prejudice. After briefly discussing a number of these factors, we will present the results of a study that examined how some of these factors affect prejudice during desegregation.

### Situational Factors

One situational factor that is a very important determinant of prejudice is informal interethnic contact. Amir (1969) discussed its importance in reducing prejudice, and both of our previous studies found

that lack of contact and prejudice were related (Stephan & Rosenfield, 1978a, 1979). Although desegregation does not usually lead to overall increases in informal interethnic contact, one would expect that those students who do show increases in inter-ethnic contact would also show decreases in prejudice.

Amir (1969) also pointed to the importance of cooperation and equal-status contact as factors in reducing prejudice in interethnic contact situations. Thus, although cooperative experiences may not be widespread, and although it may be unusual for whites and minorities to have equal status in the desegregated schools, where teachers use cooperative techniques and where whites and minorities do come together with equal status, prejudice should decrease.

Other situational factors that may help reduce prejudice include having large percentages of each ethnic group in the classroom (as opposed to "token" desegregation), desegregation of the teaching staffs, and support within the school for desegregation. Where there are large numbers of students from other ethnic groups in one's class, the opportunities for close contact increase, and that should decrease prejudice (St. John, 1975). Where the teaching staffs are desegregated, competent minority teachers serve as role models who contradict negative stereotypes of minorities and undermine prejudice (Cohen, 1980). And where desegregation is supported, close interethnic contact will be encouraged and rewarded.

## Individual Differences

A number of individual difference variables have also been shown to

be related to prejudice. For example, our earlier studies (Stephan & Rosenfield, 1978a, 1979) and a study by Trent (1957) showed that self-esteem and prejudice were related. These results support the idea that one is unlikely to be accepting of others if one does not accept oneself.

Another variable that has been shown to be related to prejudice is authoritarianism (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950). Authoritarianism is a personality syndrome that is marked by rigidity in personality and beliefs, conventionality in values, and an inclination to be power and status oriented. A number of investigators have shown that authoritarian people tend to be highly prejudiced toward almost all outgroups (Adorno et al., 1950; Roberts & Rokeach, 1956). This prejudice is usually attributed to the harsh and threatening discipline that authoritarian people are thought to be subjected to in childhood. The hostility engendered by this harsh discipline is then displaced onto disliked outgroups (Harding, Proshansky, Kutner, & Chein, 1968), thereby resulting in a high level of prejudice.

The next study that we will discuss examines the effect of these variables on prejudice during desegregation (Stephan & Rosenfield, 1978b). The following five potential determinants of prejudice were investigated: (a) the amount of close contact the students had with members of the outgroups, (b) the students' levels of self-esteem, (c) their parents' attitudes toward integration (an indication of their parents' racial attitudes), (d) their parent's authoritarianism, and (e) their parent's punitiveness.

Two hundred and thirty students in 5th and 6th grade classes in a Southwest school district were recruited to participate in this study.

Over the two years of the study a substantial number of students was lost to attrition. The data from the remaining students were analyzed by a multiple regression, with the five determinants of prejudice as predictors and changes in prejudice as the dependent variable. Because of the small number of children from whom we had complete data (65 whites and less than 40 blacks or Mexican Americans), we decided to limit our analysis to the white children.

The results from the regression showed that 43% of the variance in changes in prejudice was explained by the five factors. The analysis also showed that changes in inter ethnic contact, changes in self-esteem, parental punitiveness, and parental authoritarianism were all either significantly or marginally significantly related to changes in prejudice. As expected, increases in inter-ethnic contact and increases in self-esteem were associated with decreases in prejudice, while high parental punitiveness and high parental authoritarnianism both were related to increases in children's prejudices. The only variable that was not related to children's prejudice was parents' attitudes toward integration.

This latter finding was surprising given the fact that previous researchers have often found that parents' and children's interethnic attitudes are related. To investigate why no relationship was found, the correlations among all of the variables were examined. This search revealed that parents' attitudes toward integration were significantly correlated with their children's prejudices where no other factors were controlled. However, when a number of partial correlations were computed, it was found that the relationship between parents' attitudes toward integration and children's prejudices was only effected by inter-

ethnic contact. In other words, when contact was controlled, the correlation between parents' attitudes toward desegregation and children's prejudices was reduced substantially and, in fact, became nonsignificant. These results suggest that interethnic contact mediates the relationship between parents' attitudes toward integration and children's prejudices. Apparently, parents who have negative attitudes toward integration exert pressures on their children to avoid contact with minorities, which in turn prevents the children from developing more positive interethnic attitudes.

## The Dallas Study

This brings us to a consideration of the study that was funded by the present grant. After considering the results of the previous investigations, we began to realize that it may be more useful to focus on the situational determinants of prejudice in desegregated classes rather than on the personality or parental determinants of prejudice. The major reason for this change in emphasis was the fact that one usually can do little to change children's personalities or their parents' child-rearing practices. Situational factors, on the other hand, are often under the control of teachers and administrators, and thus are good targets for interventions designed to create more positive interethnic relations.

The results of Stephan and Rosenfield (1978b), and the work of other investigators, indicate that both the classroom social structure and the classroom social climate can have a substantial impact on the prejudices

of the students in the classes.

The social structure of the classroom includes variables like the percentage of each ethnic group in the class (St. John & Lewis, 1975) and the social stratification of the ethnic groups with respect to such status dimensions as social class and academic achievement (St. John & Lewis, 1975). The social climate of the class, on the other hand, refers to whether or not the class atmosphere is conducive to interethnic harmony. The class atmosphere can be strongly affected by such factors as the teacher's attitude toward interethnic relations (Gerard & Miller, 1975), the relative power (or powerlessness) of the different ethnic groups in the school's faculty (Cohen, 1980), and the extent to which cooperation is encouraged over competition (e.g., DeVries & Edwards, 1974; Weigel, Wiser, & Cook, 1975). Our study examines both the social structure and the social climate of the classroom to assess how they influence the prejudices of Mexican American, black, and white students in desegregated schools in Dallas, Texas.

## Social Structure Variables

One social structure variable that may be important in reducing prejudice is the relative status of the whites and minorities in the desegregated classroom. Many authors have stressed the need for equal-status interethnic contact for desegregation to reduce prejudice (e.g., Allport, 1954; Amir, 1969; Cohen, 1980; Cook, 1972; Pettigrew, 1975; St. John, 1975; Schofield & Sagar, 1977). Although most of these authors have talked about equal status in terms of the students' roles within the desegregated settings, it also seems likely that the students' status

characteristics (such as social class or achievement level) can have a great effect on prejudice. For example, if white students attend school with minority students who are below them on salient status dimensions such as socioeconomic status (SES) or academic achievement, it is likely that this contact will increase the white students' prejudices because it can reinforce negative stereotypes. But, contact with minorities who are equal to or above the whites in social class and/or achievement could reduce the whites' prejudices because it may destroy their negative stereotypes. Likewise, the minority groups' feelings of hostility toward whites may be reduced if the statuses of the groups are relatively equal or the minorities are higher than the whites. Thus, the social class and academic achievement of the minorities in the desegregated classes could increase or decrease prejudice, depending upon whether the minorities are above or below the whites on these dimensions.

Another important structural variable that may affect prejudice is the percentage of minorities in the desegregated classes. As the minority percentage increases, opportunities for intimate interethnic contact increase. Although superficial contact does not always lead to reductions in prejudice, intimate contact does appear to decrease prejudice (Stephan & Rosenfield, 1978b). Some studies have found that the number of majority-minority friendships is highest in classes where the percentage of minorities is the highest. However, these effects may be misleading, since these same tendencies would be evident if the friendship choices were racially random (St. John, 1975). Additional evidence concerning the effect of minority percentage on white prejudice is clearly needed.

Social Climate Variables

One social climate factor that has yet to be investigated is the amount of hostility students encounter from other ethnic groups. It is likely that students from one group who attend school with students from another group who have very negative attitudes toward them will react by becoming hostile toward the other group, since balance theory (Heider, 1958) suggests that we will dislike those who dislike us. This may be especially true of whites who have never had extensive contact with minorities, and thus might be offended by unexpected minority hostility. We predicted that students attending classes with outgroups who have very negative attitudes toward them, will be more prejudiced toward the outgroups than will students attending classes with outgroups who have more positive attitudes toward their group.

An additional social climate variable that may affect prejudice is self-esteem. As we noted above, those people who are highest in self-acceptance (self-esteem) are also those who are the most accepting of other people. Thus, in classes where the members of a given group have high self-esteem, the atmosphere should be more conducive to acceptance of outgroup members, and there should be more positive interethnic relations.

In addition to the relationships already discussed, one other causal possibility was initially included. Some of the students in our sample were bused for purposes of desegregation. We examined the possibility that busing might have an effect on the students' prejudices, but found that it was unrelated to prejudice and, for this reason, we dropped it from the model.

Method

The subjects were fourth grade students from Dallas, Texas. The district's overall ethnic composition was 39% white, 46% black, 14% Mexican American, and 1% Asian and American Indian. Our subjects were taken fro 104 different classes in 34 intermediate schools. The ethnic breakdown of these schools was 55% white, 30% black, 14% Mexican American, and 1% Asian and American Indian. The white-minority breakdown within the fourth grade classes in these schools ranged from 81% white and 19% minority to 14% white and 86% minority.

The data were collected during the 1976-77 school year, which was the first year of a court-ordered desegregation plan. Desegregation was primarily achieved by mandatory busing. Over 17,000 students were bused for desegregation purposes during the 1976-77 school year. Busing was confined to grades 4-12 within specific subdistricts which were required to approximate the district's ethnic composition within plus or minus 5%. The majority (56%) of the students who were bused were black. In addition, desegregation was also achieved by voluntary busing. Students in the majority in any school could choose to be bused to any other school if their ethnic group was in the minority in that school (majority-to-minority transfers), and Mexican American students in the minority in any school could choose to be bused to any school which offered a bilingual program (minority-to-majority transfers). During the 1976-77 school year nearly 1,600 students (92% of whom were black) participated in the majority-to-minority transfer program, and 34 Mexican American students became minority-to-majority transfers. Finally, the teaching staffs of each school in the district had been desegregated since 1971.

Status was computed on two dimensions; academic achievement and socioeconomic status (SES). For academic achievement, a composite grade-equivalent score on the Iowa Tests of Basic Skills (ITBS) was computed for each student by averaging his/her grade-equivalent scores on reading, mathematics, vocabulary, language, and work-study skills on the ITBS administered during September 1976. To obtain a measure of the average achievement level of a given group in a class, the ITBS scores of all the members of that group in the class were averaged. It is important to note that with only a few exceptions the students stayed in intact classes throughout the school day. That is, although the students may have gone from classroom to classroom for different subjects, the vast majority of the class would go together. Thus, a student had virtually the same classmates in every class. To compute a student's relative achievement score (the achievement level of the outgroups in a student's class relative to his/her achievement level), the average achievement score for the outgroup in the student's class was subtracted from the student's achievement score.

Our measure of a student's socioeconomic status (SES) was a composite of his/her scores on four social status dimensions. These dimensions were his/her family's size, material possessions, social and cultural activities, and use of a second language (Sheehan & Marcus, Note 1). For example, to obtain a measure of their family's material possessions, the students were asked such questions as whether or not their family (a) has two or more cars, (b) owns (as opposed to rents) its home, and (c) has an electric dishwasher. To measure their family's social and cultural activities, the students were asked such questions as whether or not they

(a) have had private lessons, (b) belong to clubs requiring dues, and (c) have parents who belong to study, civic, or social clubs. The alpha reliabilities of the four social status dimensions averaged .65. Relative SES for a student was computed by subtracting the average SES of the outgroup members in the student's class from the SES of the student. These SES data were collected during January of 1977.

Our initial analyses showed that the two status dimensions (SES and achievement) were highly related ($r = .74$), and that the relative status measures were also virtually collinear ($r = .72$). Because achievement and SES were so highly related, and because they were expected to have similar effects on the other variables in the model, they were combined to form a single status dimension. The achievement and SES scores were first converted to $z$ scores and then added together to form a composite status measure. Relative status was again computed by subtracting the average status score of the outgroup members in a student's class from the student's status score.

All of the attitude data were collected during January 1977. Included were two measures of attitudes toward the other ethnic groups. The first was a measure of white versus minority friendship, which was composed of three items. The items were: "Think of your close friends. How many of them are white?", "If you could have anyone you wanted for your close friends, how many would be white?", and "Think of whom you would most like to have for your classmates. How many of them would be white?" The possible answers to each of these items were "All of them" (1), "Most of them" (2), "About half" (3), "A few" (4), and "None" (5). The way the items were scored means that students with high scores on

these items were those who either wished to have, or had, a high percentage of their friends or classmates who were minorities. It is important to note that these items did not measure the number of minority friends a student had, but rather the proportion of their friends that were minorities or that they would like to be minorities. These three items were summed to form an index of "minority friendship" for the white students. For minority students these items were reverse scored to yield an index of white friendship. This measure was found to have an alpha reliability of .77.

The other attitude measure asked each student to answer three questions about each of the three ethnic groups (whites, blacks, and Mexican Americans). For example, three of the questions were: "Can (e.g., whites) be trusted?", "Do you get angry just thinking about (e.g., blacks)?", and "Are (e.g., Mexican Americans) OK?" The answers to each question were then summed to form a composite of attitudes toward each group. High scores indicated negative attitudes toward the group. The whites' attitudes toward blacks and Mexican Americans were next summed to form a composite index of their attitudes toward minorities. The whites' attitudes toward the two ethnic groups were summed because previous studies have shown that white students' attitudes toward these two groups are basically undifferentiated (Stephan & Rosenfield, 1978a). In the case of black and Mexican American subjects their attitudes on the three items regarding whites were summed and used as an index of prejudice toward the dominant group. This measure was found to correlate significantly ($r$ = .32) with the minority friendship measure, and it had an alpha reliability of .68. This correlation is similar to the attitude

behavior correlations obtained in our previous studies.

This measure also provided the basis for the measure of the outgroups' attitudes toward the ingroup. For each class, the attitudes of the two minority groups toward the whites were averaged to obtain the average attitude toward the whites. The attitudes of the whites toward the two minority groups were averaged to obtain an index of their prejudice against minorities. Higher numbers on this index indicate more hostility toward the group.

Self-esteem was measured by an 11-item scale developed previously for use in the school system (Vitale, Note 2). This scale was primarily designed to measure academic self-esteem. The students responded either yes or no to items such as "Are you proud of your schoolwork?" and "Can you give a good report in front of the class?" High numbers on the scale reflected high self-esteem. The alpha reliability of this scale was .72.

A path analysis was performed to evaluate the efficacy of the proposed model of the determinants of prejudice in desegregated schools (Figure 1). Because many of our measures were actually measures on the classroom and not measures on the individual (e.g., percentage of minorities in the class, the average attitudes toward the ingroup, etc.), using the individual student as the unit of analysis is somewhat inappropriate because their scores on these variables would not be independent. Also, using individual scores would tend to underestimate the effects of the classroom-level variables. The reason for this underestimation is that within each class there is considerable variation in prejudice, but all the students in each class still receive the same score on each classroom-level measure. Thus, if we used the individual

as the unit of analysis, we would guarantee that our classroom-level measures could not account for any of the variation in prejudice within the classroom, which would tend to underestimate their importance. As a result, we elected to use the classroom as the unit of analysis. In the classroom analysis, each class is one "subject," and the data for each variable is the average over the students from each group on that variable. Only classes with at least three students from the group being analyzed were used in this analysis.

Because the model is recursive (that is, there is no reciprocal causation), the path coefficients can be estimated by ordinary least squares if certain assumptions are made (Duncan, 1975). Among these assumptions are (a) the residual causes of the variables in the model are uncorrelated with the variables preceding them in the model, and hence, are uncorrelated with each other; and (b) there are no variables not specified in the model that are highly correlated with the predictors and are substantial determinants of the endogenous variables (see Duncan, 1975, for more information concerning the assumptions underlying path analysis).

Examining the friendship measure first (Figure 1) it can be seen that the model explains white friendship with minorities and Mexican American friendship with whites more effectively than black friendship with whites. There are significant determinants in our model for each of the three groups. For whites relative status is a significant predictor of minority friendship ($B = -.42$, $p < .01$) and so is the percent of minority group members in their classes ($B = .37$, $p < .01$). The higher the status of the minorities relative to the whites the greater the minority friend-

ship and the higher the percentage of minority students the more white students formed friendships with minorities.

For blacks, the only significant predictor is hostility from whites ($B = -.18$, $p < .01$). When the whites are more hostile toward blacks, the blacks reciprocate. For Mexican Americans relative status ($B = .41$, $p < .01$), and percent white ($B = .61$, $p < .01$) are significant and hostility from whites ($B = -.22$, $p < .12$) is marginally significant. As the status of the Mexican Americans decreases relative to the status of the whites, the desire to have white friends increases. The finding for the ratio of whites in the class indicates that as the percent of white students increases, so does friendship with them. Hostility directed toward Mexican Americans by whites tends to be reciprocated, although this is not a powerful effect.

The results for attitudes toward the outgroup (as opposed to friendship) indicate that for whites, self-esteem was related to prejudice ($B = -.23$, $p < .05$) as was hostility directed toward them by minority group members in their classes ($B = .40$, $p < .01$) (see Figure 2). As self-esteem increased their prejudice decreased, and as hostility increased it was responded to in kind. For blacks only hostility from whites predicted prejudice ($B = .16$, $p < .10$) and again this effect operated in the expected reciprocal fashion. Among Mexican Americans status relative to whites ($B = -.31$, $p < .05$) and the percent of white students in their classes ($B = -.32$, $p < .05$) predicted their attitudes. As was the case with the friendship measure, Mexican Americans were least prejudiced in classes where the status of the whites was highest and where the percentage of whites was high.

These analyses were repeated using change scores calculated on the basis of a survey conducted one year after the original data were obtained. For all three groups, the model accounted for less variance in the longitudinal than in the cross-sectional data. This would be expected if for no other reason than measurement error, but other factors outside the model, such as history and maturation effects, almost certainly contributed to the diminished effects. The significant predictors were exactly the same for whites and blacks in this analysis as in the original analysis, but for Mexican Americans none of the predictors in the longitudinal analysis were significant.

## Discussion

Before discussing the results of this study they probably should be put in perspective by considering some of the limitations of the study. While our measures are as reliable as most measures used with students at this age, their imperfections probably contributed to the reduced power of the longitudinal analyses. Like most studies of desegregation, this study examined students at one grade level in one region of the country at a specific point in time and its conclusions are limited by the variables that were included. Also, the community in which the study was done has its own unique history of desegregation and intergroup relations. In addition, this study focuses on a relatively recently implemented desegregation plan. However, it should be noted that in none of the results did busing play a significant role in predicting race relations. Unlike most studies of desegregation (Gerard & Miller, 1975, is an exception), we obtained both cross-sectional and longitudinal data,

which gives our results a robustness that is atypical in this area. Also in contrast to most other studies, we focused on relations between variables rather than the outcomes of desegregation. Thus, our results provide us with insights into the processes operating within desegregated schools that affect race relations.

Three factors emerge as being of special significance in this study. First, for whites and Mexican Americans their status relative to the other groups is clearly an important predictor of intergroup relations. Although many researchers have focused on the importance of relative status within intergroup interaction situations (Allport, 1954; Amir, 1969; Cohen, 1980; Aronson et al., 1978) most of them tend to deemphasize status characteristics that the students bring to the situation. Our measure was built from two such dimensions, parental social class and academic achievement levels. The results of this study suggest that these status characteristics are important for two of the three groups we studied. Where status inequalities in the classroom mirror those of the society at large, intergroup attitudes and contact deteriorate for members of the majority group. These findings are extremely distressing because they imply that members of the dominant groups are unlikely to interact with members of minority groups who enter this situation at lower levels on these status dimensions. On the other hand, members of one of the minority groups, Mexican Americans, were most reluctant to interact with whites who were similar in status to them.

The rather intriguing finding that Mexican Americans have or would like to have more white friends in classes where the status discrepancies are large rather than small is open to a variety of interpretations. It

is possible that relative equality of status creates a more competitive atmosphere between Mexican Americans and whites that is acutely felt primarily by the Mexican Americans. Thus, in classes where Mexican American students approximate the status levels of whites there may be a conflict that is waged for dominance and control in the class. This is a microcosm of what LeVine and Campbell (1972) discuss as realistic group conflict theory. This theory is concerned with economic and political conflict between ethnic groups that occupy similar (typically low) positions in the status hierarchy. Where status inequalities are great the dominance relationships are clear and there is less conflict and hostility.

Another explanation is based on the studies that have found that Mexican Americans have lower self-esteem than blacks or whites. Even if this self-esteem difference is attributable to social class differences (Stephan & Rosenfield, 1979), in the classroom the differences will be real. If Mexican Americans are generally lower in self-esteem than members of the other group they may feel a greater need to find ways of raising their self-esteem. It is possible that low self-esteem Mexican American students would like to have high status friends in an effort to bolster their self-images. The most inviting explanation is that the Mexican Americans, like the whites, prefer to associate with high status others. In the case of the whites this means that as the status of the minority group members in their classes increases they are more likely to have friends who are minority group members. Likewise, to the extent that the white students in their classes are high in status the Mexican Americans are more likely to want them as friends. At present there is

no way to determine which of these explanations is correct. Research by several teams of investigators suggest that the problems created by status differentials can be overcome in the classroom setting by techniques such as those developed by Cohen (1980) or Aronson et al. (1978). It is heartening to find that the blacks appear to be less sensitive to these differences in status. It may be more important for them to have equal status in the situation than on dimensions outside of the situation.

The second factor that emerges from these analyses is the percent of each group that is present in the classroom. Again, it appears that whites and Mexican Americans are most affected by this factor, although previous studies suggest that it is also important for blacks (St. John, 1975). There is a fascinating dilemma here, however. For both groups, as the ratio of outgroup to ingroup members increases, intergroup relations tend to improve (this effect is linear as shown by an analysis for curvilinearity that tested the possibility that equal numbers of minority and majority group members would be optimal). The problem, of course, is that as the percent of one group increases, the percent of the other group decreases. Thus, while the attitudes of one group toward the other are improving due to increased opportunities for interaction and exposure to a wider range of outgroup members, relations between the second group and the first will be deteriorating. This effect is especially strong for whites in our study and clearly suggests that for this group it may be very important to have adequate numbers of minority group members in their classes if increases in prejudice are to be avoided.

The third factor that is important in these analyses is hostility

from outgroups. The importance of this factor has never been as clearly established as it has in this study. The problem in the past has been that there are rarely sufficient data at a classroom level of analysis to investigate the effects of this factor. Our results indicate, in a manner that is consistent with balance theory (Heider, 1958), that groups that are disliked will in turn dislike the groups that dislike them. What we are describing here is a classical vicious circle of interacting causal factors. To the extent that blacks dislike whites, the whites can be expected to reciprocate leading to increased disliking of whites among the blacks. Unless feedback loops of this nature are interrupted by interventions designed to deescalate the mounting tensions, it is easy to understand how open conflict can result. These findings help us to understand how tension between groups build to a climax. They also can be used to pinpoint classrooms where interventions are most needed.

There were some differences in the predictors of prejudice and friendship, particularly for the whites. After considering the differential socialization of attitudes and behavior that we discussed in an earlier section of this report, it should not come as a surprise to find such discrepancies. It is worth considering the results for whites in some detail, because they appear to have a readily intelligible explanation. The minority friendship scale measured the proportion of a student's friends that are, or that he/she would like to be, minority group members. One would expect minority friendship to increase as minority percentage increased if only because there are more opportunities available for minority friendship. Of course, one would expect this increase in minority friendship to eventually lead to more positive

attitudes toward the minority group as a whole, but this generalization to the entire group is likely to lag behind the actual or desired formation for friendships. These effects might be especially strong in the present study, since many of the students were going to new schools and hence were just beginning to form new friendships.

In a similar manner, equal-status contact between whites and minorities may increase cross-racial friendship, but it may not immediately alter the whites' attitudes. A number of studies have shown that people choose friends of their own status or higher, even within their own race (Hollingshead, 1949; St. John & Lewis, 1975; Tudor, 1971). But, as noted above, it may take time before these changes in minority friendship are generalized to the entire group. Also, it is possible that whites who have only a limited experience with minorities of equal or higher status may not feel that these minorities are representative of minorities in general. Research on attribution theory has shown that when behavior contradicts our preconceptions, we attribute the behavior to other factors (Kelley, 1971; Rosenfield & Stephan, 1977). Thus, whites who expect minority group members to be unintelligent may not change their beliefs about minority groups when they encounter small numbers of intelligent minority students, but, rather, may think that these individuals are "exceptions" who had "lucky breaks" (Pettigrew, 1979). It may take many experiences with a variety of intelligent minority students before whites who believe that minority group members are unintelligent will change their attitudes toward the group in general.

## Concluding Comments

The results of this study demonstrate the importance of both classroom structure and classroom climate as determinants of intergroup relations in desegregated schools. Taken together with our previous research and the studies of other investigators, the present study suggests a wide range of factors that effect the outcomes of school desegregation.

It is clear that desegregation does not have one simple, predictable effect on intergroup relations. Instead, it has many different effects on different children depending on a variety of situational factors. Figure 2 shows a model summarizing many of the factors that determine how desegregation will affect intergroup relations. This model groups many of the important determinants of intergroup relations during desegregation into categories, and shows many of the variables that are included in them. The primary factors are listed below.

School and Classroom Structure. Allport (1954), Amir (1969), and others have pointed out the importance of informal, equal-status and cooperative interethnic contact in reducing prejudice. School and classroom structures that encourage this type of contact will help decrease prejudice. Most of these structural factors fit into two groups: those that increase informal contact between the ethnic groups and those that increase respect for minority groups. When there are a number of structural factors that increase informal interethnic contact (e.g., seating patterns which mix the ethnic groups) and where they negate the cultural stereotype (e.g., where there is a black principal or a number of competent, influential black teachers), the chances of decreasing

prejudice are greatly enhanced. One must remember, however, that because of biases in memory and attribution processes, it may take a number of experiences with non-stereotypic behavior from outgroup members before stereotypes and prejudices can be changed.

School and Classroom Climate. The climate of a school or classroom can either be conducive to positive interethnic relations, or it can very effectively inhibit them. Where teachers frown on interethnic contact, and where interpersonal relationships involve outbursts of hostility and anger, little positive interethnic contact will occur. But where the role models show interethnic harmony and encourage interethnic interaction, much more positive interethnic contact will occur.

Cultural Environment. The cultural environment can have many of the same effects as the school structure and school climate. Where the culture supports segregation and seriously threatens interethnic friendships, few children will be independent enough to have extensive interethnic contact. Similarly, if the culture downgrades minorities, it will take a concerted effort in the school to negate it. On the other hand, if the students come from an environment in which interethnic contact is supported and considered to be normal (e.g., if they come from a naturally integrated neighborhood), the likelihood of their making new interethnic contacts in school is increased.

Family Environment. Because children are responsive to the socializing influence of their families as well as to the influence of the general culture, the examples that their families set will also influence the children. If the family supports interethnic contact through their ideas and actions, the children should be more willing to make inter-

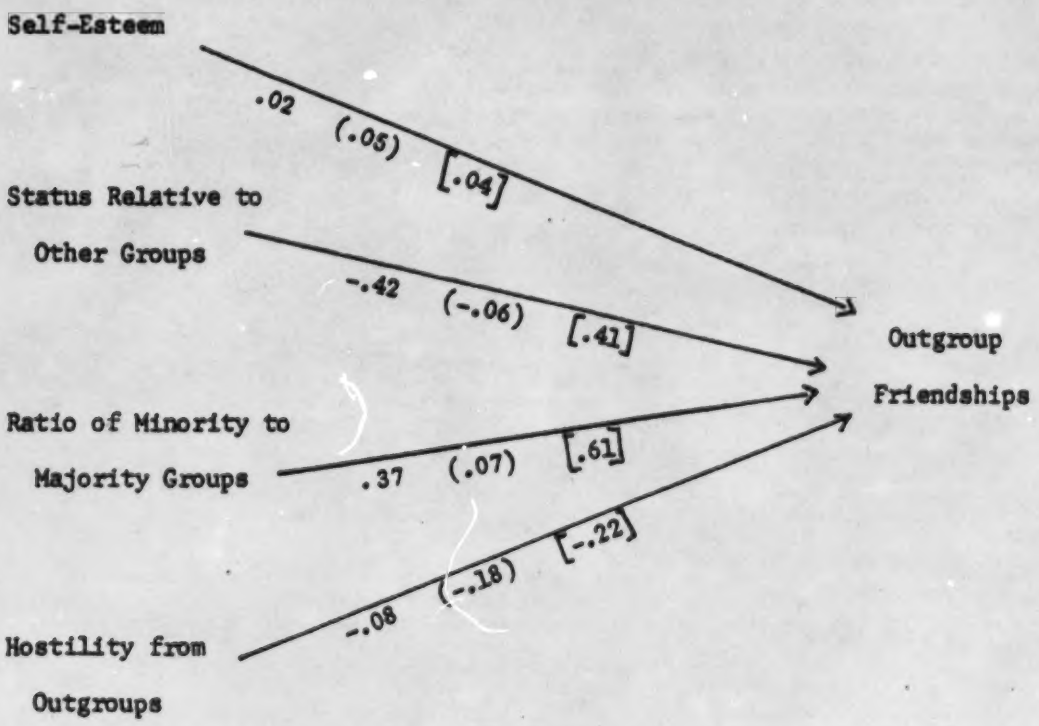
ethnic contacts. In contrast, if they show only hostility toward outgroup members, and if they display harsh and rigid child-rearing practices that engender displaced hostility in their children, the children are unlikely to develop positive attitudes toward outgroups.

Individual Differences. Finally, children may differ greatly on personality dimensions which affect their interpersonal relations and, hence, their interethnic relations. Those who generally reject others, who have mainly hostile and negative relations with other people, will not be favorably disposed to outgroup members and will rarely have any positive experiences with outgroup members. However, those who have little hostility to displace on others, and those who generally have good relationships with others, will be more likely to develop friendships with outgroup members and become less prejudiced.

The number and the complexity of the factors that affect prejudice during desegregation point to the need for making informed decisions in designing the structure and atmosphere of the desegregated schools. Armed with the knowledge of the ways to best decrease prejudice, desegregation programs can be highly successful. But where administrators reluctantly implement desegregation plans with little knowledge of how to produce interethnic harmony, the desegregation efforts may have little chance of reducing interethnic hostility.

Figure 1

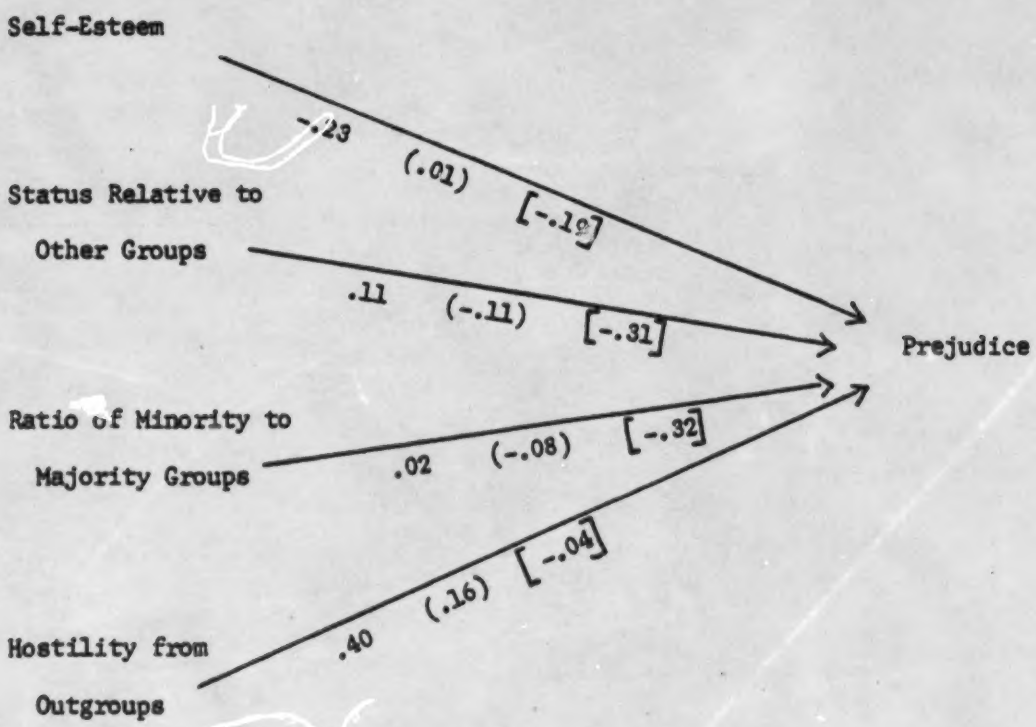
Path Models for the Determinants
of Intergroup Friendship Among
Blacks, Whites, and Mexican Americans




NOTE: The numbers that are not in parentheses or brackets refer to whites, the numbers in parentheses refer to blacks, and the numbers in brackets refer to Mexican Americans.

Figure 2

Path Models for Determinants
of Prejudice Among
Mexican Americans, Blacks, and Whites




NOTE: The numbers that are not in parentheses or brackets refer to whites, the numbers in parentheses refer to blacks, and the numbers in brackets refer to Mexican Americans.

Figure 3
Factors Affecting Prejudice During Desegregation

**School and Classroom Structure**

Structures affecting contact
- Seating patterns that mix ethnic groups
- Academic and "playground" activities that mix ethnic groups
- Satisfying interethnic cooperative experiences
- Students come from comparable SES and academic backgrounds (where feasible)

Structure affecting stereotypes
- Equal treatment of all ethnic groups within the classroom and school
- Student power within the school shared by the ethnic groups
- Power and status of the staff shared by the ethnic groups
- Competent, responsible minority staff members
- All ethnic groups respected by staff
- Activities in which minorities excel are supported and respected
- Students come from comparable SES and academic backgrounds (where feasible)

**School and Classroom Climate**

- Good interethnic relations among staff members
- Positive interethnic cooperation among students
- Teachers encourage interethnic contact
- Students have little interethnic hostility
- Friendships stressed more than grades

**Cultural Environment**

Environmental factors affecting contact
- Live in integrated neighborhood
- Support of desegregation by the officials and the populace
- Set good public examples of interethnic cooperation
- Eliminate any vestiges of segregation

Environmental factors affecting stereotypes
- Show respect for all ethnic groups
- Eliminate any vestiges of segregation
- All groups should have power and status
- Minorities should hold their share of important, respected public positions

**Family Environment**

Family factors affecting contact
- Support of interethnic relationships
- Set examples for positive interethnic relations

Family factors affecting stereotype
- Respect for minority groups
- Supportive child-rearing practices that will not result in displaced hostility

**Individual Differences**

- High self-acceptance
- Low authoritarianism
- High SES and high educational attainment
- Little hostility in relations with others
- High sociability

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